

1. (Twice Amended) A thick-film electric heater, comprising:

- a) a thermally conductive non-flat substrate surface;
- b) a silk-screened dielectric layer applied on said substrate surface;
- c) a resistive layer applied on said dielectric layer thereby forming a circuit for the generation of heat, the resistive layer having at least one resistive trace in a pattern that is discontinuous circumferentially;
- d) at least a pair of silk-screened contact pads applied in electrical communication with said resistive layer for electrical connection to a power source; and
- e) an insulation layer applied over said resistive layer.

B3  
Sub C1

5. (Amended) The heater of claim 1, where said resistive layer further comprises at least one low-resistance conductive trace in electrical communication with the at least one resistive trace, thereby forming an optimized heat generating pattern.

B2

6. (Amended) The heater of claim 5, where said at least one resistive trace is silk-screened on said dielectric layer.

B2

28. (Twice Amended) An injection mold runner nozzle having a co-axially disposed cylindrical heater comprising:

B3  
Sub C2

- B3  
Sub C2
- a) a cylindrical, thermally conductive substrate having a smaller coefficient of thermal expansion than that of said nozzle, thereby causing said substrate to clamp onto said nozzle as said nozzle and said substrate heat up;
  - b) a dielectric layer applied on said substrate;
  - c) a resistive layer applied on said dielectric layer thereby forming an electrical circuit for heat generation, the resistive layer having at least one resistive trace in a pattern that is discontinuous circumferentially around the substrate;
  - d) at least a pair of contact pads applied in electrical communication with said resistive layer for electrical connection to a power source; and
  - e) an insulation layer applied over said resistive layer.

Please add new Claims 30-31 as follows:

30. (Newly Added) A thick-film electric heater, comprising:

- B4  
Sub C3
- a) a thermally conductive non-flat substrate surface;
  - b) a dielectric layer applied on said substrate surface;
  - c) a resistive layer applied on said dielectric layer thereby forming a circuit for the generation of heat, the resistive layer having at least one resistive trace in a pattern that is discontinuous circumferentially;